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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/074,160

02/12/2002

Aamir Abbasi

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12/18/2003

MOTOROLA INC

600 NORTH US HIGHWAY 45

LIBERTYVILLE, IL 60048-5343

EXAMINER

CRAVER, CHARLES R

ART UNIT

PAPER NUMBER

2682

DATE MAILED: 12/18/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
10/074,160

Applicant(s)
Abbasi et al

Examiner
Charles Craver

Art Unit
2682

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on Feb 12, 2002 is/are a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 2 6) ☐ Other:

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DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

2. Claims 19 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Pennanen et al, US Pat 6,556,812.

Claim 19: Pennanen discloses a wireless communication handset (301) comprising

a handset body with inherent communications circuitry connected to an antenna (col 3 line 66-col 4 line 23),

a housing portion (400), mountable on a portion of the handset body adjacent to a portion of the antenna (FIG 6), inherently loading the antenna with a resonance frequency when mounted on the body using a loading member (401) disposed between the housing portion and the antenna (FIG 4), comprising a conductive material spaced by a dielectric (col 4 line 44-col 5 line 18).

Claim 20: Pennanen discloses that the antenna is an internal antenna (col 4 lines 2-10).

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Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pennanen et al.

Claims 1 and 10: Pennanen discloses a system for a wireless communication handset (301) comprising

a handset body with inherent communications circuitry connected to an antenna (col 3 line 66-col 4 line 23),

a first and second housing portion having first and second differing corresponding shapes (col 4 line 44-col 5 line 18, col 5 lines 19-27), mountable on a common portion of the handset body (FIG 6), each inherently loading the antenna with a resonance frequency when mounted on the body.

Pennanen fails to disclose that the loads/frequencies are the same, or that the housing portions are interchangeable.

However, since Pennanen does disclose that the two embodiments are each separable from the body (col 5 lines 49-54), it is plausible to one of ordinary skill in the art that both designs could be used and attached interchangeably since they both have the exact same means

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for attachment, and only differ in the shape of the top portion which is not directly connected to the device body. Further, Pennanen states that the only difference between the two embodied designs is the orientation of the conductive antenna element (see col 5 lines 20-28), which would lead one of ordinary skill in the art to determine that the loads and resonance frequencies on the internal antenna of the device would be the same.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention that the antenna loading would have been the same, and to utilize the two embodied antenna devices interchangeably so as to provide two different antenna coverage characteristics given applications, as Pennanen discloses different bandwidth shapes/flatness (col 5 line 66-col 6 line 4). Further regarding claim 10, Pennanen discloses that the housing portions may comprise a number of different materials (col 6 lines 21-30).

Claims 2 and 14: Pennanen discloses that the antenna is an internal antenna, and that the first and second housing portions each have first and second portions which are adjacent to the internal antenna when mounted on the body (406, 506), and each have a first and second portion opposite the other portions (e.g. 402) which differ between the first and second housing portions (FIG 4, 5). **Claim 3:** Pennanen discloses that the internal antenna is a PIFA (col 4 lines 7-16). **Claim 4:** Pennanen discloses that the two have substantially the same loading characteristic, as shown above regarding claim 1; further, the loading feature is disclosed between the housing portion and the internal antenna (col 4 lines 44-66). **Claim 5:** Pennanen discloses that the first and second housing portions may vary in the part adjacent the internal antenna (see FIGS 5 and 6,

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elements 406 and 506, col 5 lines 21-27). **Claims 6-8:** Pennanen discloses that the loading feature e.g. 501 may be a member disposed on an internal side of a housing portion of a housing portion and the internal antenna, comprising a conductive material and a dielectric material (col 4 lines 44-54, see FIG 6). **Claim 9:** while not a recessed portion, it would have been obvious to one of ordinary skill in the art at the time of the invention to recess the inner side of the housing portion to fit the conductive and dielectric materials based on the size of them and the angle which the top portion makes versus the phone body. **Claims 11 and 13:** if using different materials as suggested by Pennanen, such would have inherently different finishes based on plating etc. (e.g. the material applied to the housing of instant claim 13) and loading characteristics particular to that material. **Claim 12:** Pennanen discloses that the housing portions have the same general shape (FIGS 4 and 5). **Claim 15:** Pennanen discloses that the response may depend on the dimensions of the parts (inherently including thickness, col 6 lines 39-42). **Claims 16-18:** please see the rejection of claims 6-8 above.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Talvitie discloses means to attach different antenna loading elements in a mobile device.

Lim discloses means to connect an antenna.

6. Any response to this action should be mailed to:

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Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314, (for formal communications intended for entry)

Or:

(703) 872-9314 (for informal or draft communications, please label

"PROPOSED" or "DRAFT")

Hand delivered responses should be brought to Crystal Park II, 2121 Crystal

Drive, Arlington VA, sixth floor (receptionist).


7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Craver whose telephone number is (703) 305-3965.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin, can be reached on (703) 308-6739.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4700.

cc

C. Craver
December 3, 2003

 12-3-03
CHARLES CRAVER
PATENT EXAMINER